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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,908	07/15/2003	Paul Gerard D'Arcy	D'ARCY 15-6-7	7183
47396	7590	07/12/2007	EXAMINER	
HITT GAINES, PC LSI Corporation PO BOX 832570 RICHARDSON, TX 75083			DILDINE JR, R STEPHEN	
			ART UNIT	PAPER NUMBER
			2112	
			NOTIFICATION DATE	DELIVERY MODE
			07/12/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@hittgaines.com

Office Action Summary

Application No.

10/619,908

Applicant(s)

D'ARCY ET AL.

Examiner

R. Stephen Dildine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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Prosecution on the merits of this application is reopened on claims 1-22 considered unpatentable for the reasons indicated below:

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In the specification, applicant makes the following statements that indicate that the reduction unit and the checksum unit include software or microcode embodiments that fall within a 35 U.S.C. 101 judicial exception to patentable subject matter:

[0008] “For purposes of the present invention, the phrase “configured to” means that the device, the system or the subsystem includes the necessary software, hardware, firmware or a combination thereof to accomplish the stated task” (emphasis added).

[0025] “One skilled in the art should know that the reduction checksum generator 200 may have additional circuitry that is not illustrated. Also, in other embodiments, the checksum unit 230 may be a conventional checksum generator. In addition, the reduction checksum generator 200 may be embodied in hardware, software, firmware, microcode or a combination thereof” (emphasis added).

[0053] “In addition, the parallel reduction checksum generator 700 may be embodied in hardware, software, firmware, microcode or a combination thereof” (emphasis added).

M.P.E.P. 2106 states: “USPTO personnel must ascertain the scope of the claim to determine whether it covers either a 35 U.S.C. 101 judicial exception or a practical application of a 35 U.S.C. 101 judicial exception. The conclusion that a particular claim includes a 35 U.S.C. 101 judicial exception does not end the inquiry because the practical application of a judicial exception may qualify for patent protection. “It is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.” Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis in original); accord Flook, 437 U.S. at 590, 198 USPQ at 197; Benson, 409 U.S. at 67, 175 USPQ at 675. Thus, “[w]hile a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.”

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Diehr, 450 U.S. at 188, 209 USPQ at 8-9 (quoting Mackay, 306 U.S. at 94); see also *Corning v. Burden*, 56 U.S. (15 How.) 252, 268, 14 L.Ed. 683 (1854) (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”).

It is noted that applicant states, at [0021] “Referring to FIG. 2, illustrated is a block diagram of an embodiment of a reduction checksum generator, generally designated 200, constructed according to the principles of the present invention. The reduction checksum generator 200 is configured to calculate a checksum value for a message stored in a block of data 202. The block of data 202 may be conventional memory or a special buffer associated with the reduction checksum generator 200. The block of data 202 may also hold multiple messages for processing by the reduction checksum generator 200. The block of data 202 is configured into segments, where each segment contains a specific number of bits” (emphasis added). It is further noted that the term “special buffer” is not a term that is limited to hardware embodiments and buffers associated with error correction are often implemented in software (as taught by Faulk (6,256,756) at column 4, lines 52-54 “the functionality of buffer manager 13 may be performed by a software buffer management module running on processor 11”. As for the use of the term “conventional memory”, it is noted that conventional memories include software implementations as taught by Thorpe *et al.* (6,941,396) at column 6, lines 5-3 “In one implementation, the buffer metadata is in the form of cache line headers (CLHs) descriptive of the buffer data stored within each cache line of the software-implemented storage cache” (emphasis added).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Stephen Dildine whose telephone number is (571) 272-3820. The examiner can normally be reached on M - F 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

R. Stephen Dildine
Primary Examiner
Art Unit 2112

R. Stephen Dildine
Primary Examiner A.U. 2112